

### **Remarks**

This Response is submitted together with a Request for Continued Examination. Thus, the Applicants respectfully submit that the amendments discussed below and the subsequent arguments be entered into the official file and considered on the merits.

The Applicants have amended Claim 1 to include the subject matter of Claim 10. Claim 10 has accordingly been cancelled.

Claims 1-6 and 11-21 stand rejected under 35 USC §103 over the hypothetical combination of Yamada and Murata with Oka. The Applicants respectfully submit that the rejection is now moot in view of the incorporation of the subject matter of Claim 10 into independent Claim 1 as noted above. Withdrawal of the rejection is respectfully requested.

Claim 10 stands rejected under 35 USC §103 over the further hypothetical combination of Hasuo with Yamada, Murata and Oka. The Applicants respectfully submit that the rejection is now technically moot in view of the cancellation of Claim 10. However, inasmuch as the subject matter of Claim 10 has been added to Claim 1, the Applicants will address the rejection as it would theoretically apply to Claim 1.

The Applicants agree with the Examiner's frank acknowledgement that Oka, Yamada and Murata fail to disclose that the claimed silica particles have two or more particle size distributions. Thus, the rejection turns to Hasuo which "teaches a material with anti-fogging properties and anti-fouling properties" and the material comprises "silica particles with at least two size distributions." The rejection thus concludes that it would be obvious "to use silica particles with at least two size distributions as taught by Hasuo in the combination of Oka, Yamada and Murata in order to improve the anti-fogging and anti-fouling properties."

The Applicants respectfully submit that one skilled in the art would not make this hypothetical combination. There are several reasons for this. First, by referring to the Applicants' Specification, those skilled in the art can see that the Applicants sought to produce anti-reflection films for screens of displays such as CRTs, LCDs, PDPs and the like. Such devices utilize highly transparent multilayer films with high scratch resistance and anti-reflection capabilities. The Applicants thus discovered a multi-layer film comprising a substrate film, a hard coat layer containing a (meth)acrylate compound, an electrically conductive layer containing 70-90% by way of electrically conductive particles and a resin layer containing a fluorine-containing copolymer having a vinyl ether in the principal chain and silica particles with a particle size of  $0.001\text{ }\mu\text{m}$  to  $0.2\text{ }\mu\text{m}$  in two or more particle size distributions. The resulting resin layer has fine irregularities on the surface and an arithmetic roughness surface roughness ranging from  $0.004\text{ }\mu\text{m}$  to  $0.020\text{ }\mu\text{m}$  and the surface of the resin layer has a reflectance of less than 2%. The resulting multi-layer film is thus excellent in anti-reflection properties and is highly scratch resistant.

With that background in mind, the Applicants invite the Examiner's attention to the primary reference, Oka. Oka is directed to multi-layer films which seek to provide anti-glare and anti-reflection characteristics. Also, the films should have excellent moistureproofness, scratch resistance, adhesion to a substrate, transparency, low refractive index and deterioration preventive properties. Oka utilizes silica particles as disclosed in column 9 for the "prevention of settling." However, the amount and size of the silica particles must be metered carefully because those particles can have an adverse effect on the transparency of the coating. Utilization of the silica particles to prevent settling helps produce a good anti-glare layer.

Oka also teaches utilization of an  $\text{SiO}_x$  film which is scratch resistant and prevents moisture permeability. This is disclosed in column 14. The resulting multi-layer films are utilized in various displays such as word processors, computers, televisions, LCDs, optical lenses and surfaces of window glass such as for automobiles, trains and the like. Thus, many of the uses and goals of Oka are arguably similar to those of the Applicants.

Turning to one of the secondary references, Yamada, that disclosure teaches a coating composition that can employ silica particles to impart scratch resistance to the resulting coating. The resulting coating thus adheres well to substrates, has excellent scratch resistance and weatherability and has a low refractive index. Thus, it can be assumed that Yamada has at least some goals that are similar to Oka and the Applicants.

Turning to the other secondary reference, Murata, it discloses silica particles as a filler for an anti-glare material. Such material can be used for LCDs, CRTs and the like. However, there is no further discussion of the silica fillers that is of particular relevance. Nonetheless, it could again be assumed that Murata has some of the same goals as Yamada, Oka and the Applicants.

Turning now to the tertiary reference, Hasuo, it indeed discloses the aforementioned material having antifogging properties and anti-fouling properties. These characteristics are explained in detail in column 6 such as at lines 18-21, 32-37 and 64, and extending through column 7, lines 1-4, as well as lines 17-21.

It should be noted, however, that there is no disclosure of anti-glare, anti-reflection and scratch resistance in Hasuo. The disclosure of the use of the silica particles in Hasuo is limited to production of anti-fogging and anti-fouling properties. The problem with this is that it has nothing to do with the objectives of the Applicants, Oka, Yamada and Murata. Thus, the question arises as to why it would be obvious for one skilled in the art, when attempting to create

multi-layer films having excellent anti-glare, anti-reflection and scratch resistance, to look to a tertiary reference, Hasuo, that is directed to providing anti-fogging and anti-fouling properties? The answer is that one skilled in the art would not look to Hasuo.

In determining obviousness, there are two fundamental aspects that must be considered. The first aspect is that there must be motivation for one skilled in the art to make modifications to a primary reference based on the teachings of a secondary (or in this case tertiary reference) that could be advantageous to helping solve the problem at hand. Also, the prior art must provide a reasonable expectation that if one skilled in the art were to make those modifications to the primary reference, such modifications would be successful.

The Applicants respectfully submit that the hypothetical combination of Hasuo with the primary and secondary references fails on both accounts. Inasmuch as Hasuo utilizes secondary silica particles in at least two size distributions for the purpose of providing anti-fogging and anti-fouling properties, one skilled in the art would have no motivation to utilize such silica particles in at least two size distributions in conjunction with the attempt to provide multi-layer films having excellent anti-glare, anti-reflection and scratch resistant properties. Hasuo is completely devoid of discussions of any of those three characteristics and, accordingly, one skilled in the art would have no incentive or reason to import such silica particles in at least two size distributions into the films of Oka.

The Applicants respectfully submit that the hypothetical combination also fails to provide a reasonable expectation of success. Remembering again that the objective of the Applicants, Oka and arguably Yamada and Murata is to provide multi-layer films or components for multi-layer films that provide for excellent anti-glare, anti-reflection and scratch resistant properties, one skilled in the art would have no reasonable expectation of success that utilizing the silica

particles with at least two size distributions for the purpose of improving anti-fogging properties and anti-fouling properties would improve the aforementioned anti-glare, anti-reflection and scratch resistant properties. The Applicants thus pose the question where in Hasuo is there any teaching or suggestion that utilization of silica particles with at least two size distributions would be helpful in improving the anti-glare, anti-reflection and scratch resistant properties of the Oka films? The Applicants respectfully submit that there are no such teachings or suggestions. This means that one skilled in the art would not have a reasonable expectation of success in making that hypothetical combination.

As a consequence, the Applicants respectfully submit that one skilled in the art would not make the hypothetical combination of Hasuo with Oka, Yamada and Murata and the teachings of Hasuo do not provide motivation to make the hypothetical combination or to provide a reasonable expectation of success in so doing. Withdrawal of the rejection is respectfully requested.

In light of the foregoing, the Applicants respectfully submit that the entire Application is now in condition for allowance, which is respectfully requested.

Respectfully submitted,



T. Daniel Christenbury  
Reg. No. 31,750  
Attorney for Applicants

TDC/vp  
(215) 656-3381